

in Germany and Sweden and presented the results of his emergence control studies on Breitenbach.

Those in attendance on September 3 were recorded in the group picture. Everyone that attended the symposium and registered is listed at the end of this report along with their current address.

The first issue of the plecopterists newsletter *Perla* was distributed and all felt that it was a positive step forward. Plans were made to continue the newsletter at approximately one-year intervals.

A Plecopterists Luncheon was held in the Commons Room of the original Smithsonian Building on September 4 where all present were able to mingle and make new friends. The ladies in attendance at the Symposium were able to participate in an excellent program organized by Carol M. Flint.

The final day, September 6, was the field trip led by Dr. Oliver S. Flint, Jr., to the Bull Run Mountains in Northern Virginia. Although it rained most of the day and the interest of some was dampened, most everyone experienced a day to remember.

One of the major objectives of this symposium was to bring together young plecopterists to meet and learn directly from the established experts in the field. This was realized because approximately one-third of the participants were students and the open forum type of discussion allowed for free interchange of ideas. After hours contact was made difficult because of the housing arrangements available but hopefully this will be corrected in the next symposium tentatively scheduled to be held in Schlitz, West Germany.

ABSTRACTS OF PRESENTED PAPERS

BASIC PRINCIPLES AND PRACTICES IN ZOOLOGICAL NOMENCLATURE.

BY CURTIS W. SABROSKY, *Systematic Entomology Laboratory, U.S. Department of Agriculture, Washington, D.C.*

The history of successive international codes of zoological nomenclature was briefly reviewed, from the first in 1905 (then called the Règles, or Rules) to the 1961 and 1964 editions of the Code, to changes made at Monaco in 1972 and at Ustaoset in Norway in 1973. An Editorial Committee is now working on a 3rd edition that will, hopefully, be ready for final approval in late 1976.

Basic principles were listed and discussed briefly:

1. The Principle of Availability
2. The Principle ("Law") of Priority (with Conservation a Limitation on Priority)
3. The Language of Scientific Names
4. The Principle of Coordination
5. The Principle ("Law") of Homonymy
6. The Principle of Typification

Terminology: Definitions or explanations were offered for certain nomenclatural jargon: nominal genus, junior and senior, objective and subjective, primary and secondary.

A few "do's" and "don't's" that would help in avoiding nomenclatural difficulties and expedite taxonomic work were suggested.

THE PHYLOGENETIC SYSTEM OF THE ORDER PLECOPTERA.

BY PETER ZWICK, *Limnologische Flußstation des Max-Planck-Instituts für Limnologie, Germany.*

Animals can be classified in many ways, to serve many purposes and these systems may be altered or abandoned, according to the needs of their users. However, taxonomy is then reduced to a subordinate mean, a file for other disciplines and such taxonomy cannot assist in scientific research.

A more adequate way to treat taxonomy or systematics is as a science of its own, equal in rank to other sciences, with rules and procedures following scientific logic, and nothing else. Under no circumstances may these rules be bent or modified to suit other demands. The aim of such scientific taxonomy is establishment of the one system which evolved in time. Scientific taxonomy attempts to elucidate the genealogical relationships between species and supraspecific taxa of a given time, in the present or in the past. These relationships are represented in unmistakable ways, either in written systems or in cladograms. Each of these two representations can be transformed into the other, without ambiguity or loss of information. Strict monophyly of supraspecific taxa is mandatory, paraphyletic or polyphyletic taxa are not admitted. Such a system has been termed phylogenetic by Hennig (1949).

A brief account of the principles of phylogenetic systematics has been given in English by Hennig (1965). Brundin has also extensively dealt with it several times, e.g. 1966. For those who are critical of the theory of phylogenetic systematics it would be important to know its recent formulation by Schlee (1971), which is without some of the corollaries that have at times been taken to be essentials of the theory.

Unfortunately, the former "evolutionary taxonomists" have started to use the term phylogenetic systematics for their classifications. They even try to refuse the use of the term according to its older definition by Hennig. This is unfortunate, because phylogenetic systems of evolutionary taxonomists lack a clear concept. They are mixtures of "science, most strictly speaking, and of an art" (Simpson, 1961). Therefore, these systems are equivocal and are in fact little more than the usual intuitive taxonomy with evolutionary flavouring, unsuited for scientific work.

The phylogenetic system of Plecoptera (in the sense of Hennig) shown below (Fig. 6), was briefly discussed (for details see Zwick, 1973).